**Precalculus**

**Notes 5.2**

1. **Verifying Trig Identities**

* In this section we will use trig identities and algebra rules to rewrite trig expressions.
* \*\*Note the difference between a conditional equation and an identity:
* A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ equation is true for only \_\_\_\_\_\_\_ values in the function’s domain. Ex: is true \_\_\_\_\_\_\_\_\_ when .
* An \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ equation is true for \_\_\_\_\_\_\_\_ values in the function’s domain. Ex: is true for \_\_\_\_\_\_\_ .

**Examples:** Verify the following identities:

Strategies: 1) Work on one side only.

2) Pick most complicated looking side.

3) Use identities and algebra rules to rewrite expression to eventually match other side.

4) If above fails for you, convert side to sine and cosine terms.

**Ex. 1:**

**Ex. 2:**

**Ex. 3:**

**Ex. 4:**

**Ex. 5:**

**Ex. 6:**

**Ex. 7:** 2 examples from Calculus: Verify